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### International Conference on Electrical Engineering 2000 (ICEE2K)

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If you are interested in attending ICEE2K and presenting a paper, please contact the Conference Secretariat.

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The Chinese Society for Electrical Engineering (CSEE)

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#### **Experience of Lectures in Asian Countries**

### Experience of Lectures at Universities and Power Companies in P. R. China

Prof. Kenji Matsuura ( Dept. of Electrical Engineering, Osaka University )

I have had several occasions of giving lectures on insulation diagnostic technology, converter control for HVDC power transmission and electromagnetic induction of overhead transmission lines, at universities and power companies in P. R. China, Korea and Indonesia. Due to limited space, descriptions in this article are limited to my experience in the lectures on insulation diagnostic technology in P. R. China. Since 1991 these lectures has been given at East China Electric Power United Corporation, Xi'an Jiaotong University, North-west Electric Power Institute, Chongqing University and Tsinghua University

In the 1990's, economic growth in P. R. China was remarkable and all the power plants were fully operated. Engineers and researchers in P. R. China, therefore had keen interest in the in-service insulation diagnosis for the power equipments and not much in the off-service insulation diagnosis. This situation was easily suspected in every lecture room. Engineers showed a strong preference for practical technology on the insulation diagnosis for generators, cables, transformers, arresters and the other substation equipments. Researchers in this field had interests in advanced sensor technology, measuring methods and devices. They had their strong awareness of the issues. Most lectures were carried out by speaking through an interpreter who translated Japanese into Chinese. This was chiefly because there were numbers of practicing engineers in the audiences who engaged in the maintenance of power equipments in the field. Occasionally, English was used as the language at university lectures.

If I am not mistaken, they wanted to study on advanced technology of insulation diagnosis for power apparatus developed in Japan. Important points are, not only to lecture on it, but also to show lecturer's respects to the traditional Chinese culture and civilization on which Japanese society has been much influenced. In the introductory remarks at the lectures, I gave talks about Chinese ideograph used

in Japanese writing and Chinese view of nature which would be related to their deep philosophy of science. Unfortunately, it is impossible to introduce the essence of them in English. With editors permission, I dare to show them by the original version. For instance, in the text of 荘子(雑篇第26外物篇10), we find 『目の徹るを明と為し,耳の徹るを聡となし,鼻の徹るをせんと為し,口の徹るを甘となし,心の徹るを知と為し,知の徹るを徳と為す,… (This is a sentence as the original Chinese sentence is directly translated into Japanese, where original Chinese characters are mixed with Japanese letters.) " in which we can imagine the essence of modern intelligent sensor technology. Another example "陰陽錯行すれば則ち天地大いに驚く。是においてか,雷有り霰有り…." is found in the same text of 荘子 (雑篇第26外物篇2), which surprises us with the description of a lightning discharge accompanied by neutralization and transfer of positive and negative charges. The text was actually written in several hundred years BC. These talk at the beginning parts of the lectures aroused their sympathy.

Before and after lectures, there were several occasions of visiting high voltage and electric insulation laboratories where the new generation of young Chinese engineers and students devoted themselves with their whole hearts to their studies. I believe potentialities for the further development of electric insulation technology during the next decade will be great in P.R. China.

# Experience of Research in Japan by Students from Asia

## Impressions on the Research Works in Japanese Universities

Dr. Kai Wu (Nagoya University)

I have become familiar with Japan. From 1995 to 1997, I studied as an exchange student under the guidance of Prof. T.Mizutani and Prof. Y.Suzuoki at Electrical Engineering Department in Nagoya University. Then after I went back to China and obtained my doctor degree from Xi'an Jiaotong University, I came back to Nagoya University and began to work as a postdoctor fellow at the Center for Integrated Research in Science and Engineering since Dec., 1998.

Japan is a beautiful country with good nature circumstance and perfect social order. When I just arrived at Japan, I was astonished by the rapid application of new techniques in practice. Japanese are decorating their country elaborately in every inch by the most advanced techniques. Scientific research works are very active both in universities and in companies. The universities mainly carry out basic scientific researches. And their achievements can be rapidly transferred to the companies for the further practical development.

I very appreciate the good research conditions in Japanese universities. The abundant research funds and the perfect management provide a possible high efficiency for research works. Students and researchers can concentrate their attention in their researches. Various meetings or conferences also provide fluent information communications between universities and industrial companies, as well as sufficient training opportunities for the students.

In Chinese universities, because of the shortage of research funds and the relevant low efficiency with regard to the management sector, both professors and students have to spend a lot of time and energy in searching for economic supports and dealing with the daily trifles. These greatly limit the work efficiency.

Japan and China both belong to the circle of Orient culture. It is not very difficult for me to understand most customs of Japanese people (such as too much modest and politeness), although a Chinese usually behaves a little more directly. Contrasting with the carelessness and flexibility of a Chinese person, a Japanese is usually more conscientious and rigorous (sometimes even a little stiff). These characters of Japanese people are reflected in their strict obedience to the rules and submission to the superior. Although these may have negative influence on the development of personal initiatives, it is also the rigorousness that contributes to the high efficiency of the whole group.

Japan is now on her way to internationalization. More and more foreigners are being involved into

Japanese society. The interactions between different cultures may bring about new vigor and variety in Japan. Certainly, as one of the foreigners, I also gained a lot from not only the research work in the university, but also the communications with surrounding Japanese people.

### Memories in Waseda University

Dr. Kwang Soo Seol (Waseda University)

When I remember the last five years in Ohki's Lab of Waseda University as a doctoral student and an assistant researcher, some memories flash across me: the moment when I visited Ohki's Lab for the first time, the moments when I succeeded in measuring photoluminescence from amorphous silicon dioxide films and my first paper was decided to be published, the day when I got a doctoral degree, the congratulation party for my degree, the last seminar before I left the Ohki's Lab, and so on. Among the memories, some were bitter while some were happy.

In February1994, I visited for the first time Ohki's Lab, Department of Electrical Engineering (presently, Department of Electrical, Electronics, and Computer Engineering), Waseda University as an exchange student between Korea University and Waseda University. At that time, Ohki's Lab located at the building that looks like a big garage or warehouse and places at most remote location in the campus. The first impression is enough to disappoint a foreign student filled with a big expectation. However, such disappointment changed soon to respect when I heard the splendid research achievement from Professor Ohki. With respect, my study in Waseda University started. In the first one year, I was struggling to accustom myself to new environment and new research theme. Since I intended to go to a doctoral course, I expected good results and felt anxiety and irritation about no result as time went on. In October of the year, the happening to blow off my anxiety and irritation took place. I did succeed in measuring photoluminescence spectrum, which I so much expected, from silicon dioxide film formed by implantation of oxygen. Due to such anxiety and success, I was granted admission to a doctoral course and could write a first scientific paper. Under an intense guidance from Professor Ohki, I could finish the first paper. I still remember how happy I was when I knew that the paper was accepted almost as is. After that, three years have elapsed and the time to summarize my doctoral period came. I never forget the moment when my name was called as a doctor of engineering in the graduation ceremony. After graduation, I could continue an assistant researcher in Waseda University. In the last September, the time when I leave Waseda University came. My new post-doctoral position in the Institute of Physical and Chemical Research (RIKEN) was determined. In my last seminar done before leaving Ohki's Lab, I could say how happy my period in Ohki's Lab was. Using this opportunity, I want to present my hearty appreciation for professor Ohki and the students in Ohki's Lab one more time.